

## REMARKS

### **I. Introduction**

This paper is submitted in response to the Office Action dated August 17, 2009 ("Office Action"). Applicant sincerely appreciates the thorough review of the present application that is reflected in the Office Action. In response, Applicant has amended Claims 2, 6, 27, 29, 32, 36, 37 and 39. Claim 11 has been canceled. New Claim 40 has been added. In light of these claim amendments and the following remarks, Applicant respectfully submits that all of the claims are now in condition for allowance, which is respectfully requested.

### **II. The Rejections of Claims 2-5, 8, 9, 27, 29 and 36**

Claims 2-5, 8, 9, 27, 29 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Publication No. EP 1096813 A2 to Koskinen et al. ("Koskinen"), in view of U.S. Patent Publication 2003/0028602 to Bhattacharya ("Bhattacharya"). Applicant respectfully traverses each of these rejections.

#### **A. The Rejection of Claim 2**

Independent Claim 2 recites:

A method for a wireless terminal participating in a packet-switched communications session to provide notice of receipt of an incoming circuit-switched call, the method comprising:

receiving a paging request associated with the incoming circuit-switched call; and

**notifying a server that establishes and runs the packet-switched communications session that the wireless terminal has received the incoming circuit-switched call,**

wherein notifying the server that establishes and runs the packet-switched communications session that the wireless terminal has received the incoming circuit switched call comprises **forwarding a notification message** from the wireless terminal **to the server over a circuit-switched channel.**

In contrast, Koskinen describes a method of "maintaining" data transmission connections that involves sending a mere trinket to the server. *See, e.g.*, Koskinen at ¶ 18. The "messages" described in Koskinen are not used to notify the server that a wireless

terminal has received an incoming circuit-switched call—they serve only to reduce the probability that the packet-switched connection will get cut off before the circuit-switched call is completed. *See* Koskinen at ¶ 11. Koskinen describes a system in which a server automatically severs its connection with a given client whenever a certain period of time has elapsed since it last received input from that client. *See, e.g.,* Koskinen at ¶¶ 4 and 5. Thus, Koskinen proposes sending a “message” to the server before switching over to the circuit-switched call, thereby restarting the time-out countdown and extending the time available for the circuit-switched call:

By applying the method of the invention, it is possible to avoid cutting off of a packet connection particularly in situations in which the request to set up a circuit-switched connection comes right before the moment to transmit a message necessary for maintaining the connection. Thus the circuit-switched connection can be active for a longer time, irrespective of the moment of setting up of the connection. Thus, the probability of cutting off of the packet connection is significantly lower than in solutions of prior art.

Koskinen at ¶ 11.

Not only does Koskinen fail to teach or suggest “notifying a server that establishes and runs the packet-switched communications session that the wireless terminal has received the incoming circuit switched call,” it actually teaches away from providing such a notification. Koskinen describes “messages” that convey minimal information—they merely inform the server that a given client was actively engaged in the connection at the time the “message” was sent. This point is highlighted by Koskinen’s discussion of its preferred embodiment:

Before interrupting the packet connection, the wireless terminal MS transmits a message to maintain the packet connection. This can be implemented preferably in such a way that a “No Operation” command, insignificant as such, is transmitted from the wireless terminal to the mobile communication network.

Koskinen at ¶ 18 (emphasis added) (internal abbreviations/citations omitted). Koskinen makes it very clear that these clock-restarting “messages” are *not* designed to notify the server that the wireless terminal has received an incoming circuit switched call.

Accordingly, one skilled in the art would have no motivation to combine Koskinen’s method with the teachings of Bhattacharya. Bhattacharya describes using the Short Message

System (“SMS”) as a means to send an “intelligent alert to a mobile phone after a voice mail has been delivered to the recipient’s voice mail box.” Bhattacharya at Abstract (emphasis added). Unlike the “messages” described in Koskinen, these alerts are designed to convey meaningful information to the recipient:

The network operator of the receiving communications network sends the receiving user an intelligent alert in the form of a[n] SMS message. The alert consists of the header data of the message. [If] the message is a voice message, the first few words of the message may be converted into text and transmitted as part of the alert. This message “summary” may be treated as part of the message meta-data. Depending on the instructions of the transmitting user in generating the message, the list of other receiving users may also be part of the alert.

Bhattacharya at ¶ 39 (emphasis added). Koskinen explicitly teaches that such information should *not* be included in its “messages.” *See, e.g.*, Koskinen at ¶ 18. One skilled in the art would therefore have no motivation to combine Koskinen and Bhattacharya. Indeed, Koskinen itself dissuades such a combination.

Furthermore, Koskinen itself appears to teach that its “messages” should be sent over a packet-switched channel (*See* Koskinen at ¶ 18), *not* a circuit-switched channel as recited in Claim 2. As mentioned above, Koskinen’s “messages” merely restart the server’s time-out countdown. Because the server’s “clock” simply monitors when the last packet-switched communication was received from a given client (*See, e.g.*, Koskinen at ¶ 4), the most efficient method of restarting the clock is to send a packet-switched “message.” Using a circuit-switched channel would be a far more complex way of restarting the clock—it would require hardware and software changes designed to inform the server that messages sent over a circuit-switched data bearer actually signaled the continued engagement of a packet-switched communication session. And despite all of its additional complexity, this hypothetical combination of Koskinen and Bhattacharya would provide no additional benefits.

Finally, Applicants note that the hypothetical combination of Koskinen and Bhattacharya would not produce a method, a wireless terminal, or a computer program product of the claimed invention. The Office Action relies on Bhattacharya to teach the use of a circuit-switched channel. But simply sending Koskinen’s “messages” over a circuit-

switched channel would not endue them with the ability to “notify[] a server . . . that the wireless terminal has received [an] incoming circuit-switched call.” Thus, even if one skilled in the art were somehow motivated to modify Koskinen with the teachings of Bhattacharya, he/she would **not** arrive at the claimed invention.

Therefore, because Koskinen neither teaches nor suggests all of the recitations of Claim 2, and because Koskinen teaches away from the “intelligent” alerts described in Bhattacharya, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 2 as being unpatentable over Koskinen in view of Bhattacharya.

B. The Rejections of Claims 3-5, 8 and 9

Claims 3-5, 8 and 9 each depend from Claim 2, and hence are patentable over Koskinen and Bhattacharya at least by virtue of their depending from a patentable base claim. Additionally, Applicant respectfully submits that Claims 3-5, 8 and 9 are independently patentable over Koskinen in view of Bhattacharya.

The Office Action apparently concedes that Koskinen fails to teach or suggest the recitations of Claims 3 and 4. Office Action at 4-5. Again, the Office Action relies on Bhattacharya to supply the missing teaching. *Id.* Yet, as before, the Office Action fails to provide an adequate rationale whereby one skilled in the art might have been motivated to combine Koskinen and Bhattacharya. For at least the reasons discussed above, Applicant respectfully submits that one skilled in the art would not have been motivated to combine the cited references in the manner suggested, and therefore submits that Claims 3 and 4 are independently patentable over Koskinen in view of Bhattacharya.

With respect to Claim 5, the Examiner cites to Col. 1, lines 37-42 of Koskinen as disclosing the method of Claim 3 “wherein the notification message is forwarded via an IP level connection over the SMS data bearer.” Office Action at 5. However, the cited passage merely states that the GPRS service “makes it possible” to use the IP protocol. It says nothing about forwarding a notification message from a wireless terminal to a server “via an IP level connection over the SMS data bearer” as is expressly recited in Claim 5. Indeed, Koskinen’s only example of a “message” sent from a wireless terminal to a server—the “No Operation” command described in paragraph 18—appears to be carried over a packet-

switched connection. Applicant therefore respectfully submits that Claim 5 is independently patentable over Koskinen and Bhattacharya.

Similarly, the Office Action cites Col. 9, lines 41-47 of Koskinen as disclosing the recitations of Claim 8. Office Action at 5. Yet the cited passage neither teaches nor suggests “notifying the server that establishes and runs the packet-switched communications session upon termination of the incoming circuit-switched call.” Instead, the cited passage expressly states that the only communication sent after the call is terminated is a message from the mobile switching center to the serving GPRS support node. *See also* Koskinen at Fig. 1B. Thus, no message is sent to the server that establishes and runs the packet-switched communications session. As such, Claim 8 is independently patentable over Koskinen and Bhattacharya.

Because Koskinen fails to teach or suggest “notifying the server that establishes and runs the packet-switched communications session upon termination of the incoming circuit-switched call” (as recited in Claim 8), it follows that it cannot teach or suggest doing so via a circuit-switched channel (as recited in Claim 9). The Office Action correctly concedes that Koskinen does not disclose the recitations of Claim 9, but turns to Bhattacharya to supply the missing teaching. *See* Office Action at 6. For at least the reasons discussed above, Applicant respectfully submits that one skilled in the art would not have been motivated to combine the cited references in the manner suggested, and therefore submits that Claim 9 is independently patentable over Koskinen in view of Bhattacharya.

C. The Rejection of Claim 27

Independent Claim 27 recites:

A wireless terminal, comprising:  
a transceiver;  
a packet-switched **suspension notification circuit** coupled to the transceiver that is **configured to generate a notification message that is suitable for transmission as an e-mail message or a text message** over a circuit-switched SMS data bearer **to a server controlling a packet-switched communications session** when the wireless terminal temporarily suspends participation in the packet-switched communications session; and  
a circuit-switched communications circuit, wherein the packet-switched suspension notification circuit generates the notification message in

response to receipt of a circuit-switched page by the circuit-switched communications circuit.

As noted above with respect to Independent Claim 2, the “messages” described by Koskinen are *not* notification messages—they signal nothing more than the fact that the client was actively engaged with the server at a precise moment in time. As noted by the Examiner on page 6 of the Office Action, such “insignificant” messages (*See* Koskinen at ¶ 18) are not “suitable for transmission as an e-mail message or a text message over a circuit-switched SMS data bearer” (as recited in Claim 27). Indeed, Koskinen’s preferred embodiment appears to transmit its “messages” via a packet-switched connection. *See* Koskinen at ¶ 18.

Although the Office Action asserts that “[i]t would have been obvious . . . to modify the invention of Koskinen and have it include a notification message that is suitable for transmission as a text message over a circuit switched SMS data bearer, as taught by Bhattacharya” (Office Action at 7), it seems unlikely that one skilled in the art would have possessed the motivation necessary to make the proposed modification. As was discussed above with respect to Claim 2-5 and 8-9, Koskinen actually teaches away from the inclusion of meaningful information in its “messages.” Thus one skilled in the art would be dissuaded from any modification that led to the generation of a “notification message that is suitable for transmission as an e-mail message or text message.”

Therefore, because Koskinen neither teaches nor suggests all of the recitations of Claim 27, and because Koskinen teaches away from the use of “notification messages that [are] suitable for transmission as an e-mail message or text message,” Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 27 as being unpatentable over Koskinen in view of Bhattacharya.

D. The Rejection of Claim 29

Independent Claim 29 recites:

A computer program product implemented in a wireless terminal that is participating in a packet-switched communications session that provides notice of receipt of an incoming circuit-switched call, comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to receive a paging request associated with the incoming circuit-switched call;

computer readable program code configured to **notify a server** that establishes and runs the packet-switched communications session **via a text message or an e-mail message** that is transmitted over a circuit-switched SMS data bearer channel **that the wireless terminal has received the incoming circuit-switched call**; and

computer readable program code configured to **notify the server** that establishes and runs the packet-switched communications session over the circuit-switched SMS data bearer channel **upon termination of the incoming circuit-switched call**.

Koskinen does not teach or suggest “notify[ing] a server . . . that the wireless terminal has received [an] incoming circuit-switched call” (see discussion above with respect to Claim 2). Nor does it disclose “notify[ing] the server . . . upon termination of the incoming circuit-switched call” (see discussion above with respect to Claims 8 and 9). Moreover, Koskinen actually teaches away from the use of text messages and e-mail messages (see discussion above with respect to Claim 27).

Therefore, because Koskinen neither teaches nor suggests all of the recitations of Claim 29, and because Bhattacharya fails to remedy these clear deficiencies in Koskinen’s teaching (see discussion above), Applicant respectfully requests that the rejection of Claim 29 as being unpatentable over Koskinen in view of Bhattacharya be reconsidered and withdrawn.

#### E. The Rejection of Claim 36

Independent Claim 36 recites:

A method for a wireless terminal participating in a packet-switched communications session to provide notice of receipt of an incoming circuit-switched call, the method comprising:

receiving a paging request associated with the incoming circuit-switched call;

**notifying a server** that establishes and runs the packet-switched communications session **that the wireless terminal has received the incoming circuit-switched call**, wherein notifying the server that establishes and runs the packet-switch communications session that the wireless terminal has received the incoming circuit-switched call comprises forwarding a first notification message from the wireless terminal to the server over a circuit-switched SMS data bearer channel; and

**forwarding a second notification message** from the wireless terminal **to the server that establishes and runs the packet-switched communications session** via a text message or an e-mail message that is transmitted over the circuit-switched SMS data bearer channel **upon termination of the incoming circuit-switched call;**

wherein the incoming circuit-switched call comprises a circuit-switched call transmitted over a GSM network.

As discussed above with respect to Claims 2, 27 and 29, Koskinen's "messages" do not "notify[] a server . . . that the wireless terminal has received [an] incoming circuit-switched call." Instead, they merely restart the timer that threatens to automatically sever the connection between the server and the client. *See, e.g.*, Koskinen at ¶ 11.

Likewise, as was previously discussed with respect to Claims 8 and 9, Koskinen expressly states that the only communication sent after the incoming circuit-switched call is terminated is a message from the mobile switching center to the serving GPRS support node. *See* Koskinen at ¶ 25 and Fig. 1B. No message is sent to the server that establishes and runs the packet-switched communications session.

Moreover, as the Office Action concedes, Koskinen fails to teach or suggest both the use of a circuit-switched SMS data bearer, and the forwarding of a notification message via a text message or an email message. Office Action at page 8. Given Koskinen's clear teaching away from the inclusion of meaningful information in its "messages" (see discussion above with respect to Claims 2, 27 and 29), and the fact that Koskinen's preferred "message" appears to be transmitted via a packet-switched channel (see discussion above with respect to Claim 5), Applicant respectfully submits that one skilled in the art would **not** have been motivated to combine Koskinen and Bhattacharya in the manner suggested by the Office Action.

Accordingly, Applicant respectfully submits that Claim 36 is patentable over the cited references and requests that the rejection of Claim 36 be reconsidered and withdrawn.

### **III. The Rejections of Claims 6 and 39**

Claims 6 and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koskinen in view Bhattacharya, and further in view of U.S. Patent Publication No.



2005/0041640 to Nasielski et al. ("Nasielski"). Applicant respectfully traverses these rejections.

Claims 6 and 39 depend from Claims 2 and 36, respectively, and hence are patentable over the cited references at least by virtue of their depending from a patentable base claim. Additionally, Applicant respectfully submits that Claims 6 and 39 are independently patentable over the cited references for at least the reasons discussed below.

The Office Action concedes that Koskinen fails to disclose a "notification message [that] includes an identification associated with the wireless terminal and an estimate of the duration of the incoming circuit-switched call" and points to paragraph 32 of Nasielski to supply the missing teaching. Office Action at 9-10.

Without conceding either that Nasielski actually teaches including "an identification associated with the wireless terminal," or that one skilled in the art would have been motivated to combine the cited references in the manner suggested by the Office Action, Applicant respectfully notes that none of the cited references, either alone or in combination, teach or suggest transmitting a notification message that includes "an estimate of the duration of the incoming circuit-switched call." Accordingly, the rejections of Claims 6 and 39 should be reconsidered and withdrawn.

#### **IV. The Rejections of Claims 31, 32, 34, 37 and 38**

Claims 31, 32, 34, 37 and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koskinen in view of Bhattacharya, and further in view of U.S. Patent Publication No. 2004/0142694 to Levy et al. ("Levy").

##### **A. The Rejection of Claims 31, 32 and 34**

Claims 31, 32 and 34 each depend either directly or indirectly from Claim 2, and hence are patentable over the cited references at least by virtue of their depending from a patentable base claim. In addition, Applicant respectfully submits that Claims 31, 32 and 34 are independently patentable over the cited references because one skilled in the art would not be motivated to combine the cited references in the manner suggested by the Office Action.

The Office Action relies upon Levy to supply the teaching necessary to modify Koskinen's method and apply it a push-to-talk session. Office Action at 10. The Office Action asserts that one skilled in the art would have been motivated to combine Levy with Koskinen and Bhattacharay "in order to inform users . . . about a service interruption so that they can properly re-establish the session." Office Action at 11. Yet that rationale appears to contradict the teachings of the cited references.

Koskinen's "messages" do not inform the user of anything. According to the preferred embodiment described in paragraph 18 of Koskinen, the user needn't even know a "message" was sent. It therefore seems unlikely that one skilled in the art would be motivated to modify Koskinen in an effort to "inform users . . . about a service interruption."

Accordingly, Applicant respectfully submits that Claims 31, 32 and 34 are independently patentable over the cited references.

**B. The Rejection of Claims 37 and 38**

Claims 37 and 38 each depend either directly or indirectly from Claim 36, and hence are patentable over the cited references at least by virtue of their depending from a patentable base claim. Additionally, Applicant respectfully submits that Claims 37 and 38 are independently patentable over the cited references.

As a preliminary note, Applicant submits that one skilled in the art would not have been motivated to modify Koskinen in the manner suggested by the Office Action. As discussed above with respect to Claims 31, 32 and 34, the proposed motivation for such a modification (*see* Office Action at 12) appears to contradict the cited references. Moreover, even if one skilled in the art were somehow motivated to combine Koskinen and Levy, he/she could not produce a method of Claim 37 or 38.

Claim 37 recites a method that comprises, among other things, "resuming the push-to-talk session under the existing Packet Data Protocol context after termination of the circuit-switched call." The Office Action cites Koskinen, column 8, lines 3-7 as disclosing the aforementioned recitation. Office Action at 11. However, the cited passage appears to be wholly unrelated to resuming a push-to-talk session:

This can be implemented preferably in such a way that a “No Operation” command, insignificant as such, is transmitted from the wireless terminal to the mobile communication network.

Koskinen at ¶ 18 (internal abbreviations/citations omitted). The rejection of Claim 37 should therefore be reconsidered and withdrawn.

The method of Claim 37 also comprises “a push-to-talk session, wherein the server that establishes and runs the packet-switched communications maintains a Packet Data Protocol context associated with the push-to-talk session throughout the duration of the circuit-switched call.” The Office Action concedes that Koskinen does not teach or suggest such a method, and relies on Levy to supply the missing teaching. Office Action at 11-12. Levy, however, does not appear to support the Office Action’s assertion.

Levy does not even contemplate suspending a push-to-talk session in favor of a circuit-switched call. Rather it is directed at “a method and apparatus for automatically dropping and reacquiring a [push-to-talk] dispatch channel” (Levy at ¶ 1):

If the signal quality of any dispatch call participant falls below the given threshold, the system alerts all the dispatch call participants thereby avoiding any loss of communications, and tears down the previously set up dispatch call. If the signal quality becomes acceptable again for those [mobile stations] who had previously experienced poor signal quality, they send a message to the system, which automatically sets up a new dispatch call and alerts all the dispatch participants that the dispatch channel can be used again.

Levy at Abstract (emphasis added) (internal figure labels omitted).

Moreover, Levy fails to teach the maintenance of a Packet Data Protocol context associated with a push-to-talk session:

[T]he system maintains information (e.g., participants involved, channel assignments, etc.) on the previously dropped dispatch call for a predetermined period of time referred to as the reestablishment time period, and continues to monitor the [mobile stations] to determine if the [mobile stations] involved in the dispatch call are all above the required signal strength levels. . . .

If the reestablishment time period has not expired [and] it is determined that all of the dispatch call participants have acceptable signal quality, . . . the system control automatically establishes a new dispatch call link and alerts all the dispatch call participants by transmitting a “good channel” alert signal.

Levy at ¶¶ 18 and 19 (emphasis added) (internal figure labels omitted). Automatically dropping an *old* push-to-talk dispatch call and establishing a *new* push-to-talk dispatch call necessarily implies that that server has not “maintain[ed] a Packet Data Protocol context associated with *the* push-to-talk session.”

Accordingly, Levy does not supply the teachings necessary to remedy the clear deficiencies of Koskinen’s teaching. Claim 37 is thus independently patentable over the cited references, as is Claim 38 by virtue of its depending from Claim 37.

**V. Newly-Added Claim 40**

Applicant respectfully submits that Claim 40, which incorporates the recitations of several Independent and Dependent Claims, is patentable over the cited references for at least the reasons discussed above with respect to Claims 2-6, 8,9, 27, 29, 31, 32, 34 and 36-39.

**VI. Conclusion**

For at least the reasons stated above, Applicant respectfully submits that the present application is in condition for allowance, which is respectfully requested.

Respectfully submitted,



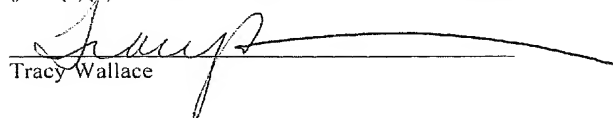
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